

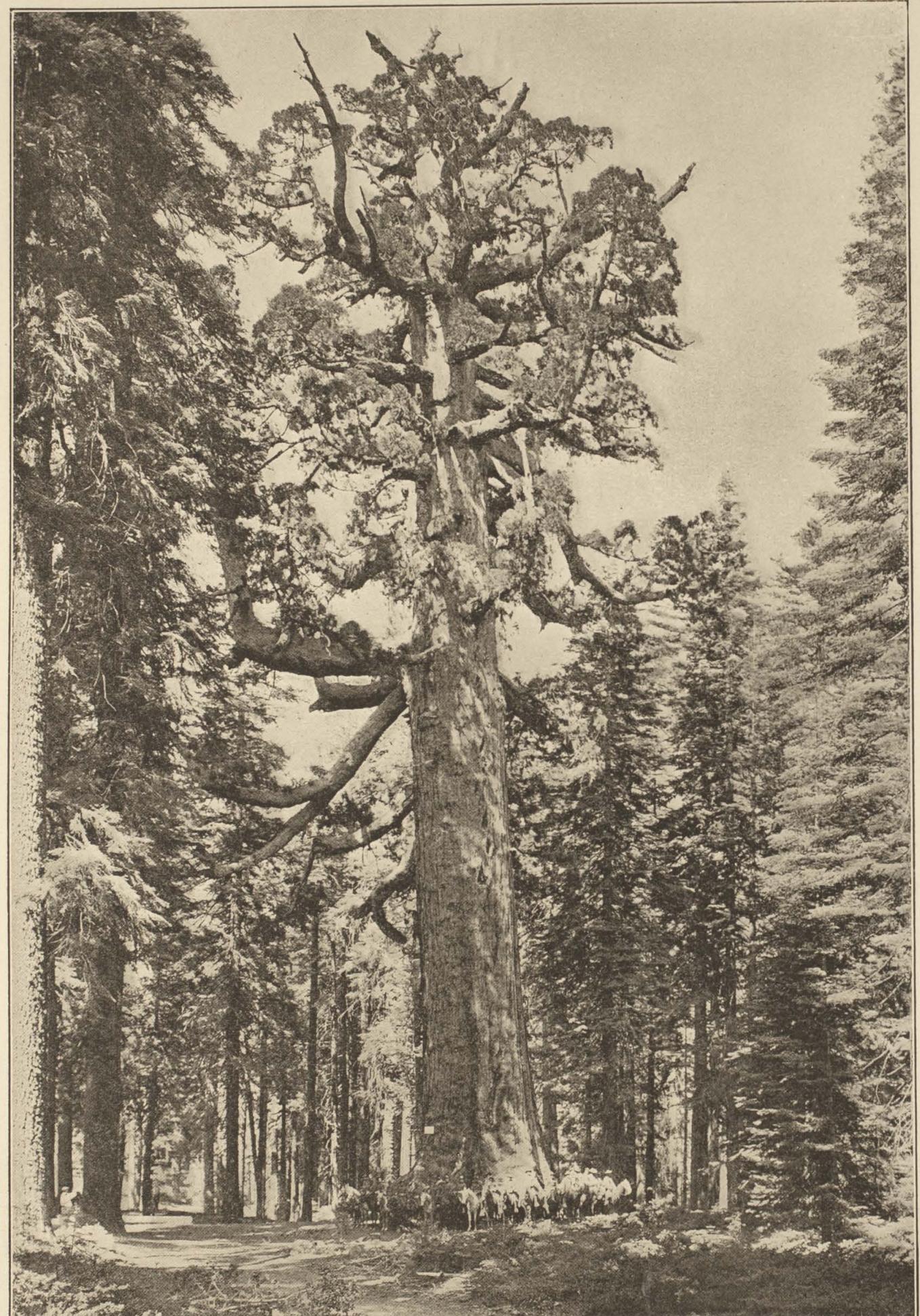
# BIG TREES OF California



W.H. BULL.

SOUTHERN PACIFIC





The "Grizzly Giant,"  
Mariposa Grove,  
near Yosemite Na-  
tional Park, has a  
girth of 91 feet at the  
level of the ground.

It differs from most  
Sequoias in the size  
of its branches, the  
first, 125 feet up,  
being twenty feet  
around.

# BIG TREES OF CALIFORNIA

A living thing,  
Produced too slowly ever to decay,  
Of form and aspect too magnificent  
To be destroyed.

*William Wordsworth*

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## A Word About the Giants



THE BIG TREES, as they are popularly called, are found only in California. Their scientific name is Sequoia in honor of Sequoyah, a Cherokee Indian, who designed an alphabet for his tribe.

There are two varieties, the Sequoia sempervirens or redwood, which grows in extensive forests on the ocean side of the Coast Range, and the Sequoia gigantea, the real Big Tree, which is found only on the western slope of the Sierra Nevada, usually at an elevation of from 4500 to 7500 feet.

Both trees are evergreens, and both bear small cones about two inches long, containing little flat seeds, not unlike a parsnip seed. But the first named reproduces itself from the stump, while the other is dependent upon its seeds and grows only where these can find lodgment in the naked soil. The sempervirens or redwood of commerce grows in almost pure forests, while the gigantea stands in clusters or groups in fellowship with other conifers. It forms groves rather than forests, what is called the "Giant Forest" being only a closer succession of groves.

The redwood attains a height of 275 feet and a diameter of twenty-two feet, the most accessible grove being near Santa Cruz, about seventy miles south of San Francisco.

The Big Tree (gigantea) is the head of the family in age and size. There are specimens which tower nearly 400 feet to the sky, and one is said to slightly exceed this, while large numbers of these giants measure from seventy to ninety feet around. The largest found was thirty-five feet eight inches in diameter inside the bark.

These trees when fully grown are usually proportionate and symmetrical in girth and height. The bark is occasionally very thick and is a bright cinnamon color, soft and fibrous, while the beauty of the tree is enhanced by the flutings which traverse the trunk from base to apex.

The root system is too slight to explain the great size which the tree attains and the foliage too thin and inconspicuous to do respiratory duty. It is thought that the bark serves this purpose as well as the leaves, and that the bland and regular climate gives the tree at once long life and great girth.

Estimates of the age of the Big Trees vary from the beginning of the Christian era to a period antedating that epoch by 4000 years. The secret of their age has not yet been discovered, but the one great undisputed fact remains: that these trees in all their majesty stand here today *the oldest living things in all the world*.

These ideal trees, "Nature's Forest Masterpiece," are thought by John Muir to have been preserved in the places where they are now found, by the topography of the mountains. The great glacial rivers swept past them and left them to our wonder and admiration.

They are descendants of trees once existing in great forests widely dispersed over the world, but which perished during the Glacial Age everywhere save in the California mountains.

The Calaveras Grove was found by a hunter in 1852; the Mariposa Grove from three to five years later.

No one who can spare the few days necessary to see one of these groves should miss the opportunity. In no other region can they be found. They are distinctly Californian.

## The Way To See the Big Trees

Contrary to the usual idea, the Big Trees of California are easily accessible, and in every case the journey itself well repays the traveler for his time. The Santa Cruz Grove is only a two-hour-and-a-half ride from San Francisco, through a beautiful spur of the Coast Range covered with pine trees. It is six miles from Santa Cruz, seventy-three from San Francisco. Tickets between Los Angeles and San Francisco are good for passage via the Big Trees, without extra charge.

The Big Basin, now known as the California State Redwood Park, a grove of 3800 acres, is seven miles from Boulder Creek station and sixteen miles from Santa Cruz—a delightful drive. It was purchased by the State in 1902, to be reserved as a public park. In it are found some of the finest redwoods.

The grove in Calaveras County is reached by Sierra Railway from Oakdale to Angels, thence by stage. The train leaves San Francisco in the morning, and passengers connect at Angels, same evening, with stage for Murphy's, remaining overnight. There is a good hotel at Murphy's called Mitchler's. The next morning's drive of fifteen miles reaches the Trees. On the verge of the grove, stands the excellent Calaveras Big Tree Grove Hotel. Six miles south is the South Park Grove, containing over 1380 trees.

One of the principal features of the trip to the Yosemite National Park is the Mariposa Grove of Big Trees.

Commencing May 1st, until September 1st, daily through Pullman sleeping car service is established between San Francisco and the Yosemite, arriving at El Portal, the Gateway of Yosemite, at 7:00 a. m. Stage coaches leave El Portal after breakfast, reaching the Sentinel Hotel at 11:30 a. m.

A daily train for Yosemite Valley leaves San Francisco in the morning, reaching El Portal in the evening, after a delightful ride along the Merced River, the night being spent at Hotel Del Portal instead of in the sleeper.

There is sleeping car service from Los Angeles every evening, connecting at Merced with the Yosemite Valley R. R. following day for the Park.

Stage coaches leave Sentinel Hotel daily after lunch for the Mariposa Grove, arriving at the excellent Wawona Hotel in time for dinner. The Trees are visited early the following morning, passengers returning to Wawona for lunch and arriving at the Sentinel Hotel or El Portal the evening of the same day if desired. It is advisable to remain over and take a full day for the Trees, which will involve no extra charge for stage service.

The General Grant National Park is reached via the Southern Pacific to Sanger, thence by auto-stage service. At the southern entrance to the park lies Sequoia Lake where there are excellent camping grounds.

The California Grove is reached by rail (Southern Pacific San Joaquin Valley line) to Visalia, thence electric line to Lemon Cove where arrangements can be made for horses or stage beyond. The time from Lemon Cove is six hours. A camp is maintained at Juanita Meadows. There is good fishing in the Kaweah River. This grove lies in the saddle between Grant National Park and the Giant Forest and is a discovery of recent years. From July to mid-September the air of this whole big tree belt is perfect.

Giant Forest—same service as above to Lemon Cove, where similar arrangements can be made for the trip to Sierra Camp, Walter Kenney, proprietor. Season July to September.



This is an example of the group habit of these wonderful trees. They cluster about the graves of their ancestors.

The groves are usually composed of groups, and all grow in a delightful air along the middle heights of the Sierra.



The old "Grizzly Giant" represents a solitary survivor of his immediate kin, or grew apart in "the solitude of his own originality."

John Muir thinks this Sequoia is a mature tree, verging to old age. It still ripens its cones with great regularity.

Often well buttressed, the Sequoia as frequently shows no supporting roots, and actually penetrates the earth but a little way.



8

King, the geologist, thought that "the vast respiring power, the atmosphere, the bland, regular climate" gave the tree its long life.

Here is both a natural and an abnormal growth. The one in the middle distance shows a buttress at once fine and strong.



9

This tree probably protected itself, after the fire which burned out its center, by an excessive expansion of its root system.

How small and squat  
the cabin looks! Yet  
seventy-five people  
can dine in it at  
once. The vast size  
of the trees dwarfs  
the house.



10

"Tongues in trees,"  
said Shakespeare.  
What stirring stories  
could these ancients  
tell from their five  
thousand years of  
world watching.

These trees were  
living towers when  
Cheops dreamed of  
building pyramids,  
and the hosts of  
Pharaoh perished in  
the Red Sea.



11

Three score and ten  
years make up the  
life of man—seventy  
times seventy years  
but bring the Se-  
quoia gigantea to a  
ripe maturity.

The fallen Sequoia does not decay. Insects do not attack it. Trees that have lain 400 years are found sound in fibre and clear in color.



12

The species show no signs of suffering or degeneracy. Kept from fire and storm, who could fix a limit to their unexampled life?

A box big enough to comfortably contain the Atlantic liner "Lusitania" could be made from one tree, with wood to spare.



13

Once widely dispersed, since the age of ice they are found only on the Sierra Nevada slopes, a living link that binds us to the past.



A coach and four driving through the heart of this living tree in the Mariposa Grove, suggests at once its bulk and its vast vitality.

14

The Mariposa Grove was first discovered in 1855, but first explored and its wonders given to the world the following year.



More revered than were the sacred groves of old, these are patrolled by a troop of United States Cavalry.

15

Next to the great girth of these trees, one feels their grace, their symmetry, their sculptural beauty, their singular majesty.



Through the tunnel of "Wawona" is driven with ease the four-horse stage coach and its load from Yosemite National Park.

16

Wawona is the Indian name for big tree and this "Wawona" is thirty feet through and just ten times as high.

Enough lumber here to make one telegraph pole forty miles high or to supply a line of poles from Kansas City to Chicago.

17



Yet the cones of this tree are small as a pullet's egg, and the seeds are thin and light. But what potency of life in them.

The "Fallen Mon-  
arch" of Mariposa  
Grove would supply  
twenty-four miles of  
board fence six feet  
high.



18

Roughly speaking it  
contains 50,000 cubic  
feet of lumber and  
weighs very nearly  
three million pounds.

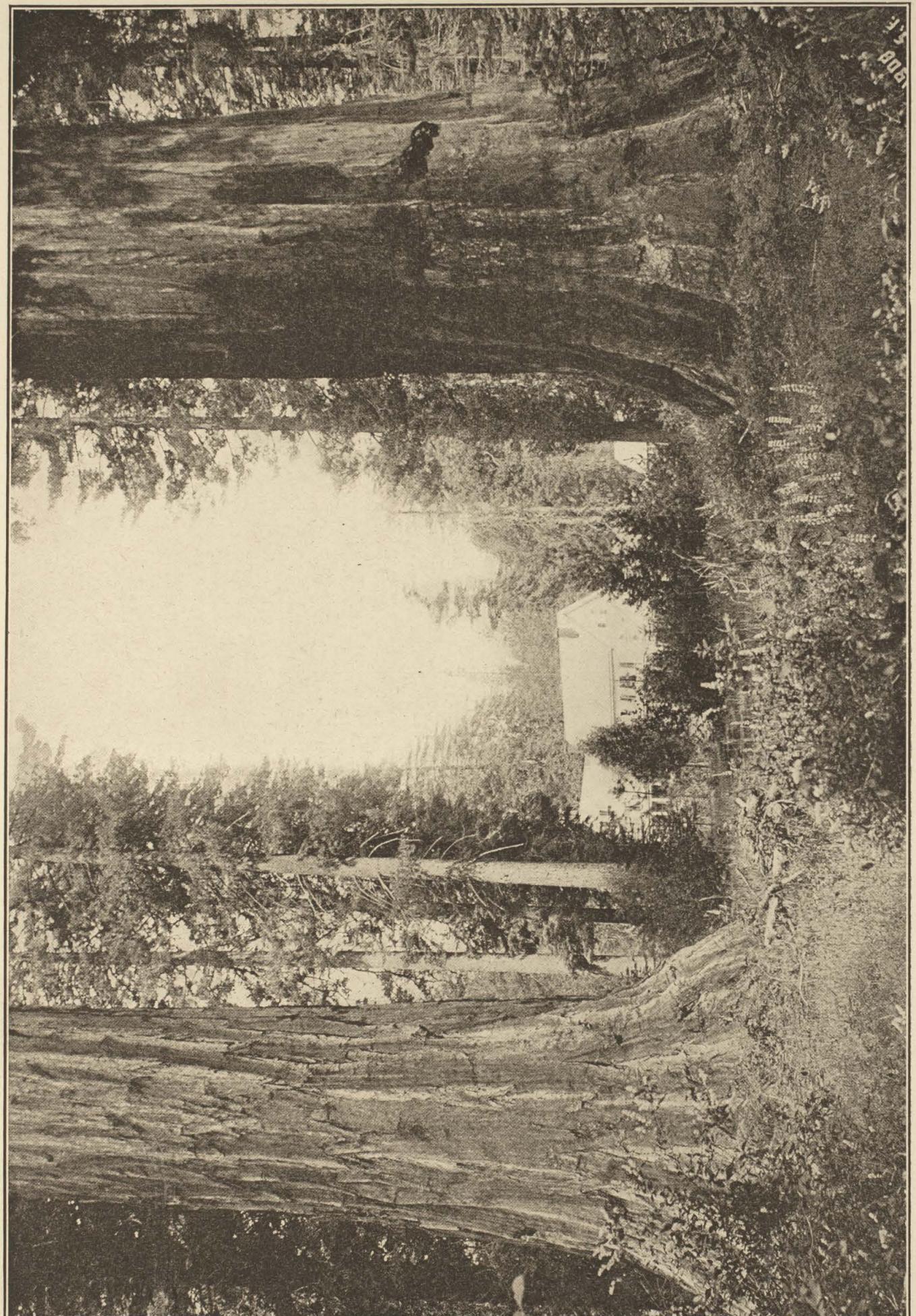
The tree is partly  
buried in six feet of  
soil accumulated  
since its fall hundreds  
of years ago, yet the  
wood is sound.



19

Its mighty girth fur-  
nishes a roadway for  
a six-horse coach,  
which with sixteen  
passengers finds  
ample room.

The hotel at Calaveras Grove stands back of "Two Sentinels" each over 300 feet high and twenty odd feet in diameter.



20

The Calaveras Grove was discovered in the spring of 1852 by Mr. A. T. Dowd, a hunter, whose story was laughed at.

Photographed by Charles Weidner, San Francisco

These are the lusty "Twins" of Calaveras Grove, just over 300 feet high and about 3000 years old.



21

The tree has two kinds of leaves, those on young trees and lower branches, and those on limbs that have borne flowers.

Photographed by Charles Weidner, San Francisco



Photographed by Charles Weidner, San Francisco

In the hollow of this tree in the Calaveras Grove a hunter and guide lived for nearly three years. It was his "roof tree."

It is a one-room cabin; is sixteen by twenty-one feet and was sometimes shared with his horses. The "simple life," and no rent to pay!

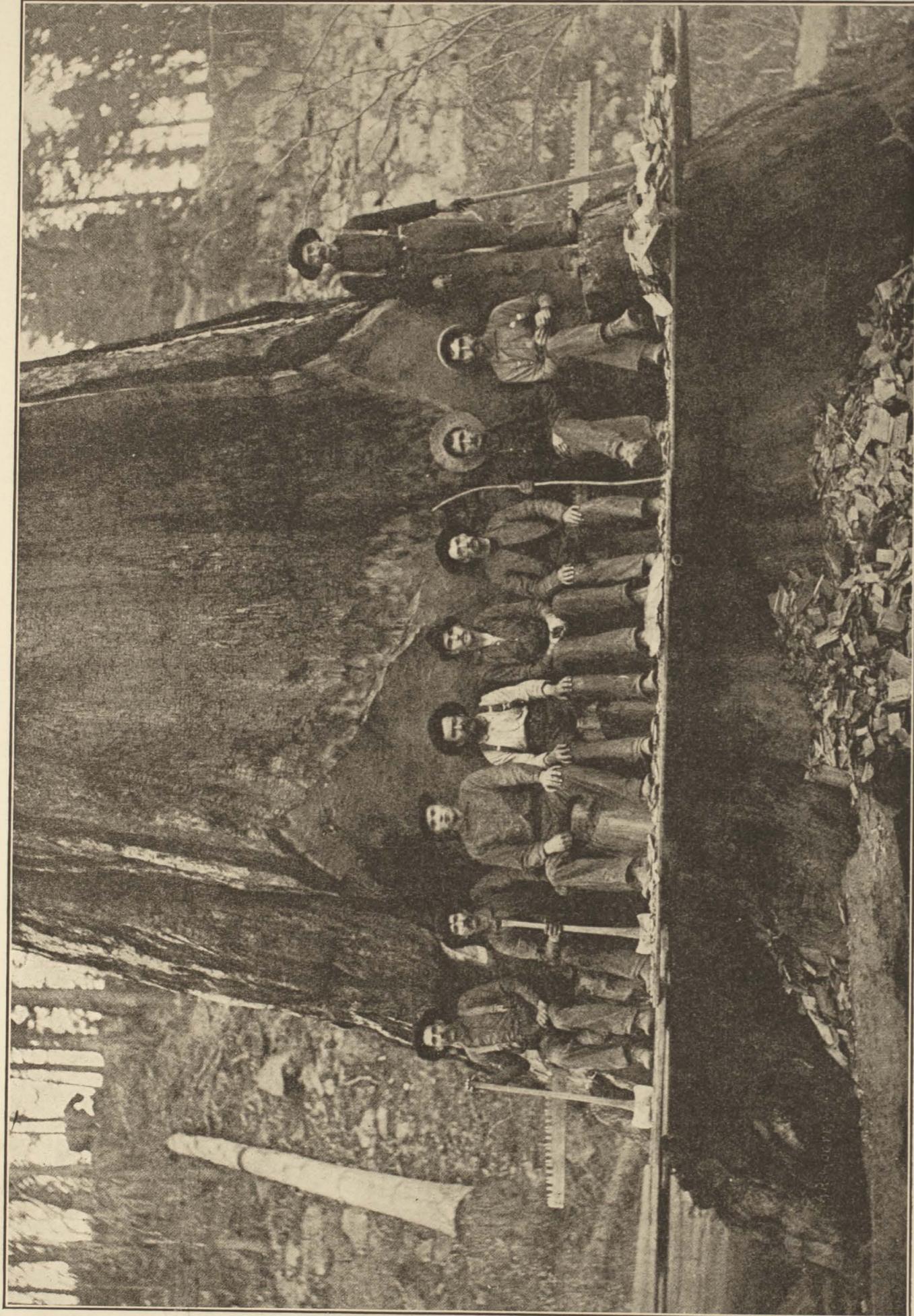


Photographed by Charles Weidner, San Francisco

The tree and the auto! It is a far cry from the birth of the tree to the motor car. A gap of probably fifty centuries.

In the season when winds are balmy and sweet, and every bower in the groves is a bridal bower, visit these giants.

This tree could be turned into boards enough to completely sheathe the Masonic Temple, Chicago, with one-inch planks.



24

For unnumbered ages it has withstood the stress of wind and weather only to succumb at last to man the destroyer.

This tree, called "Rob Roy," is 109 feet around the base. It is in the Kings River country, where many Sequoias have been cut for lumber.

25



The Sierra Club of California found it in the High Sierra eight years ago. Rough trails make it unavailable for lumbermen.

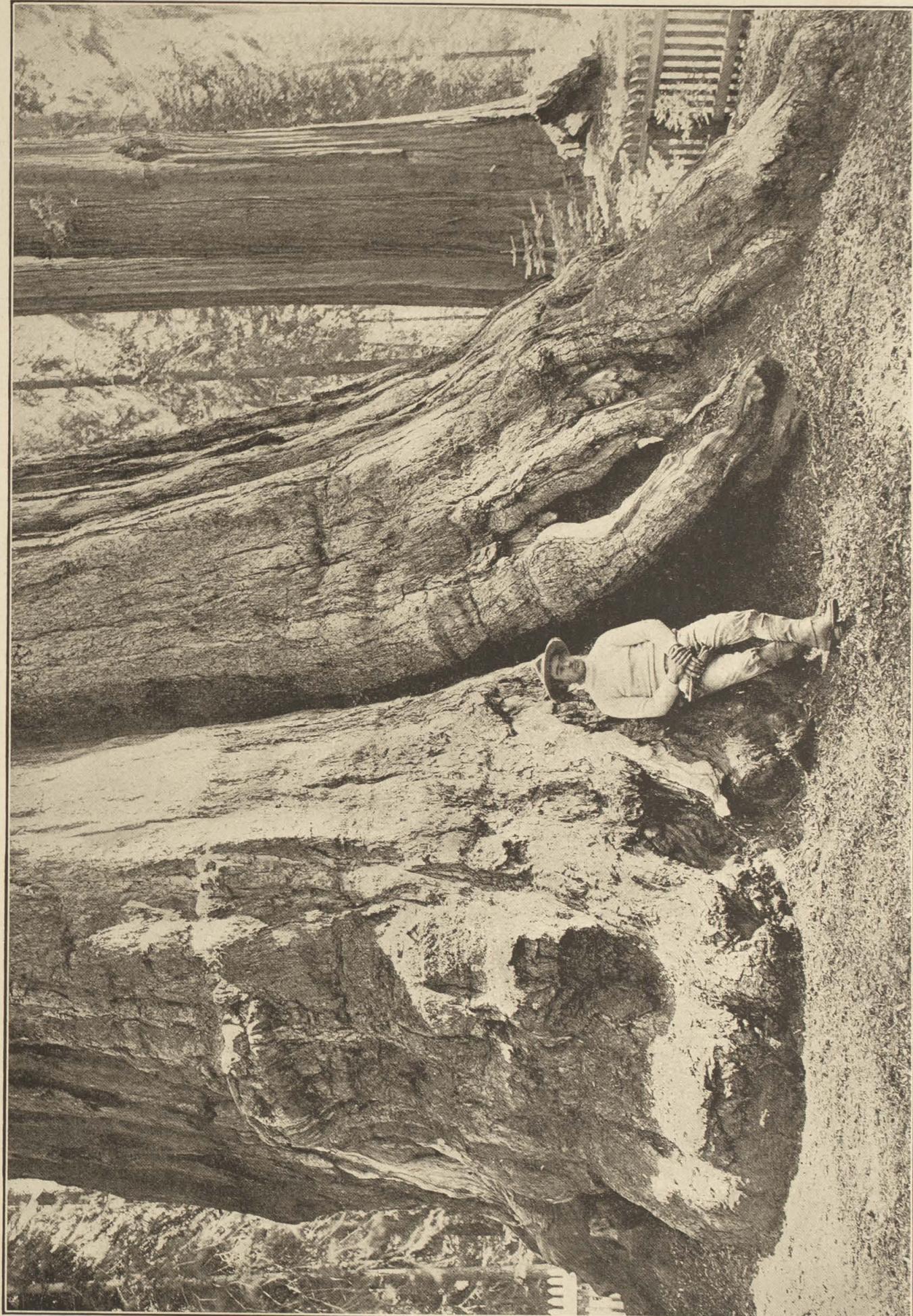
Above the snow in late winter, the great trees blossom like gigantic goldenrods, sowing their pollen on the winds.



26

Here are fine insteps, beauty of tapering trunks, richness of color in the bark, and above a mist of pale apple-green foliage.

In the Giant Forest the "General Sherman" is almost an ideal tree and shows 280 feet of slowly tapering column.



27

It is estimated that there are in this forest 3000 trees over 300 feet high, besides a host of lesser growth.

"Old Goliath" in California Park might have produced 400,000 rails of average size, or 800 miles of total length.



28

Abraham Lincoln, splitting 150 rails in a ten-hour day, would have been kept busy with this fallen giant for several years.

Along the stage road, California Park, in the King's River region. This is the largest of all the groves.

29



Here are probably 20,000 mighty trees, old when Rome was young, and bidding fair to grow broad and high for a thousand years to come.



The Santa Cruz redwoods (*Sequoia sempervirens*) are cousins of the Big Trees of the High Sierra.

30

Almost as great in height and girth, they produce the redwood of commerce—lumber both useful and ornamental.

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Cones of *Sequoia Gigantea*